

FIRST REPORT OF LATHROMEROIDEA GIRAULT (HYMENOPTERA, TRICHOGRAMMATIDAE) FROM KOREA WITH DESCRIPTION OF A NEW SPECIES

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Abstract The genus *Lathromeroidea* Girault (Hymenoptera, Trichogrammatidae), including a new species, is newly reported from Korea. *L. multidentata* sp. nov. can be distinguished from the close species *L. ajmerensis* Yousuf & Shafee by stigmal vein less than 0.5 \times of marginal vein, poststigmal vein developed and ovipositor arising from base of abdominal venter. The new species also can be separated from another close species *L. silvarum* Nowicki by its larger body size, 5-dentate mandible, and C3, C4, C5 with different length.

Key words Hymenoptera, Trichogrammatidae, *Lathromeroidea*, new species, Korea.

The genus *Lathromeroidea* (Hymenoptera, Trichogrammatidae), characterized by the common elongate and slender body shape, is close to *Lathromeris* Girault by 2 anelli, 5-segmented club and similar venation and body color, however it can be distinguished from the latter by its distinct and straight RS1, female s club without terminal process and smaller body size. This genus shows high variations among species, thus Pinto (2006) divided the genus into three unformal phonetic species groups A, B and C according to fore wing structure alone. However except the group C with distinct difference from other species by the unique cephalic pit, the other two groups are easily confused with some other genera. Especially group B is quite similar with the genus *Uscanioidea* Girault.

Up to now, there are 9 known species of the genus in the world, among which, 1 from Palearctic Region, 3 from Oriental Region, 1 from Nearctic Region, 1 from Neotropical Region, 2 from Australian Region and 1 from more than one region. Except that 2 species (*L. migrella* Girault and *L. gerriphaga* Pinto) were reported parasitizing the eggs of Cicadellidae (Homoptera) and Gerridae (Hemiptera), the biological characters and hosts of the remains are unknown. A study of materials collected from Korea has revealed one new species, and this genus is also the first record in Korea. The specimens studied were collected by sweeping, and its biological data is unavailable right now.

The descriptions are based on specimens slide-mounted in Canadian balsam. All the measurements and

hand-drawings are taken from slide-mounted specimens at 100 \times , 200 \times , or 400 \times magnification of Olympus compound microscope BX60. Body length is measured from the anterior margin of the head to the apex of abdomen, excluding the exerted part of the ovipositor. Except that the data of body length is true size, the remains are all relative ones. Terminology for morphological features mainly follows Doutt and Viggiani (1968) and John D. Pinto (2006).

The holotype is deposited in the Invertebrate Resources Bank of Korea (IRBK), Seoul National University, Korea and the paratype is deposited in the Life Science and Technology College, Xinjiang University, Urumqi, China.

Lathromeroidea Girault

Lathromeroidea Girault 1912: 94; Doutt and Viggiani, 1968: 506; Lin, 1994: 106; Pinto, 2006: 100.

Type species: *Lathromeroidea nigra* Girault

Type locality. Australia.

Distribution. Korea, China, India, Poland, Australia, Argentina, Belize, Bolivia, Brazil, Colombia, Costa Rica, Ecuador, Guatemala, Paraguay, Panama, Peru, Venezuela, West Indies, Mexico, United States, Canada.

Host. Eggs of Cicadellidae (Homoptera) and Gerridae (Hemiptera).

Diagnosis. Antenna with 2 anelli (A1, A2) and 5-segmented club (C1-C5), C1 shorter and narrower than C2 and usually closely appressed. Fore wing disk moderately to densely setose, RS1 distinct and straight.

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Male genitalia short, without PAR, VS and aedeagal AAP, its length less than that of HTL, ventral setae present.

Lathromeriodea multidentata sp. nov. (Figs. 1-4)

Description. Female. Body length 0.76 mm. Body color dark brown, except antenna and legs brown, forewing disk colorless with fuscated area beneath venation.

Head round, mandible subquadrate, with 2 large, sharp and 3 small, blunt denticles; maxillary palp 1-segmented, subcylindrical, 3.5 \times as long as wide (7/2), terminal setae shorter than length of palp (5/7). Antenna (Fig. 1) slender, length/width of scape, pedicel and club: 30/7, 17/9, 33/11; A1 same length and width with A2 which closely appressed to C1, club narrow, length/width of club segments: 2/9, 5/10, 5/11, 9/11, 12/7, C1 much smaller than other club segments, C3, C4 wider than others, C5 longest club segment. Club sensilla sparse, C4 with 1, C5 with 2 PLS respectively; club setae straight and sparse.

Thorax length/width: 24/20, midlobe of mesoscutum and scutellum with 2 pairs of long, subequal setae respectively, midlobe of mesoscutum with hexagonal cells sculpturing and scutellum with longitude sculpturing. Forewing (Fig. 2) elongate round, 2.62 \times as long as wide (55/21), venation elongate, narrow, attaining 0.49 \times FWL (Fore wing length) (27/55), marginal fringe moderately long, 0.31 \times FWW (Fore wing width) (6.5/21), venation ratio: submarginal 11 premarginal 7 marginal 8 stigmal 3.5, premarginal subequal length with marginal, 2.29 \times as long as stigmal vein; between marginal vein and stigmal vein with distinct constriction, light break between premarginal and marginal vein; poststigmal vein developed; submarginal with 2, premarginal with 2 and marginal vein with 3 long dorsal setae. Disk with dense, long setae, arranged in regular lines. Setae starting from half apex of marginal

vein except posterior line which from apex of premarginal. RS1 developed and straight. Hind wing (Fig. 2) 13 \times as long as wide (39/3), with 3 linear setae tracks, setae much short. The ratios of each leg segment as followings Table 1.

Table 1. The ratios of each leg segment.

	Fore leg	Middle leg	Hind leg
Femur	14	13	15
Tibia	12.5	20	20
Tarsus	2, 3, 4/9	3.5, 3.5, 4/11	4, 4, 5/13

Abdomen longer and wider than thorax, length/width: 29/30, ovipositor long, 1.65 \times as long as hind tibia (33/20), located at base of abdomen, slightly extending beyond apex of abdomen.

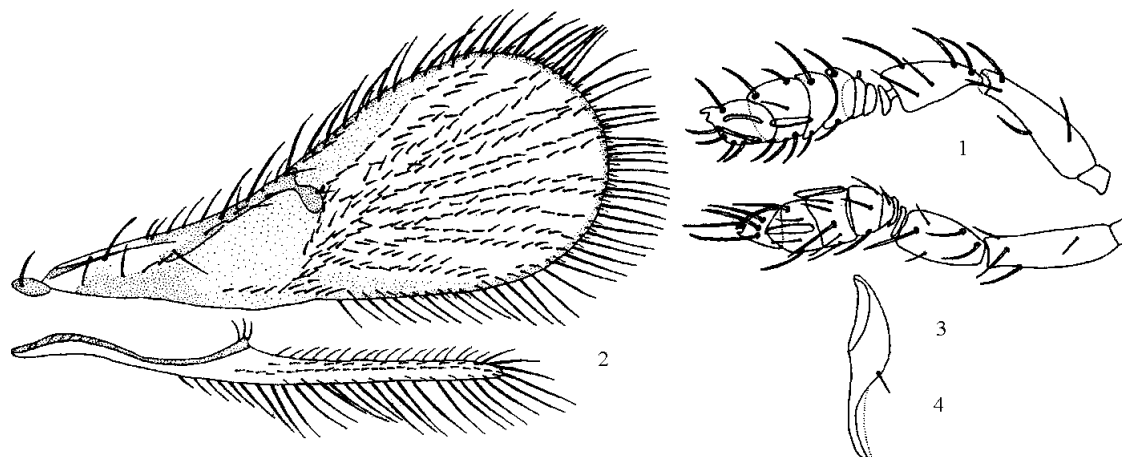
Male (Figs. 3-4). Body length 0.67 mm. Most characters same as female except abdomen lightly longer than head and thorax together; marginal fringe 0.36 \times FWW; GC (genital capsule) (Fig. 4) with length 0.47 \times HTL (hind tibia length) (7.5/16), PAR (lateral parameres) absent.

Holotype, Korea Jeollanamdo, Gangjin-gun (34°38'N, 126°47'E), 20 July 2006, coll. Sang-kyu Lee. **Paratype**, Korea, Gyeongsangbuk-do, Yeongcheong-gun (35°59'N, 128°49'E), 3 Aug. 2006, coll. HU Hong-Ying.

Distribution. Korea, (Jeollanamdo, Gangjin-gun; Gyeongsangbuk-do, Yeongcheong-gun)

Etymology. Named for its more denticles than that of the similar species *L. silvarum* Nowicki.

Remarks. This species can be distinguished from *L. ajmerensis* Yousuf & Shafee by stigmal vein less than 0.5 \times of marginal vein, poststigmal vein developed and ovipositor arising from base of abdominal venter; it also can be separated from *L. silvarum* Nowicki by larger body size, 5-dentate mandible, and C3, C4, C5 with different length.



Figs. 1-4. *Lathromeriodea multidentata* sp. nov. 1. Female antennae. 2. Fore wing and hind wing. 3. Male antennae. 4. Male genitalia.

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韩国新纪录属拟纹赤眼蜂属及一新种记述（膜翅目，赤眼蜂科）

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摘 要 首次报道了拟纹赤眼蜂属 *Lathromeria* Girault 在韩国的分布，并记述了 1 新种，多齿拟纹赤眼蜂 *Lathromeria multidentata* sp. nov.。新种与 *L. ajmerensis* Yousuf & Shafee 相似，但新种痣脉短于缘脉的一半，痣后脉较为发达，产卵器着生

于腹部腹面基部；新种与 *L. silvarum* Nowicki 也相似，但前者个体较大，上颚具 5 齿，第 3~5 节棒节长度比例也不相同。正模标本保存于韩国首尔国立大学无脊椎动物资源库，副模保存于新疆大学生命科学与技术学院昆虫研究室。

关键词 膜翅目，赤眼蜂科，拟纹赤眼蜂属，新种，韩国。

中图分类号 Q969.54

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